



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,074	11/26/2003	David C. Long	J-3679A	8629
28165 7590 06/04/2007 S.C. JOHNSON & SON, INC. 1525 HOWE STREET RACINE, WI 53403-2236			EXAMINER KARLS, SHAY LYNN	
			ART UNIT 1744	PAPER NUMBER
			MAIL DATE 06/04/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/723,074	Applicant(s) LONG ET AL.	
	Examiner Shay L. Karls	Art Unit 1744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-8,10-19,30 and 31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 30 and 31 is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-8, 10-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 8, 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adams in view of Girardot et al. (USPN 6406206), Zayas and Kessel (USPN 6746311).

With regards to claim 1, Adams teaches a portable powered cleaning device comprising a housing (12) and motor (26) mounted in the housing. The motor comprises a drive shaft (36), which is coupled to a carrier (40). The carrier reciprocates with respect to the housing when the drive shaft is moved. There is a cleaning attachment (52) removably attached to the carrier and recesses filled with surface treatment (56) located between the cleaning attachment and the carrier.

With regards to claim 10, the cleaning attachment is made from rubber (col. 2, lines 29-30).

With regards to claims 11 and 12, the surface treatment composition is in liquid, gel or paste form and can be used to clean or polish (col. 2, lines 33-39).

With regards to claim 13, the surface treatment comprises surfactants (detergent) (col. 2, lines 33-39).

Art Unit: 1744

Adams teaches all the essential elements of the claimed invention however fails to teach that the surface treatment composition is located in a separate packet wherein the packet is perforated and includes a peel off layer covering the perforations and also that the cleaning attachment is attached to the carrier by a hook and loop fastener connection. Adams also fails to teach that the carrier reciprocates between 3,000 and 10,000 cycles per minute (claim 1 and 8) and that the cleaning attachment is triangular (claim 1).

Girardot teaches a cleaning packet comprising a surface treatment composition (60) such as a cleaning agent (col. 4, lines 6-9) having a peel off layer (40) covering perforations (30). Zayas teaches a cleaning device which comprises a cleaning attachment attached to a carrier by many fastening means such as clips, snaps or hook and loop material (col. 3, lines 29-32). Kessel teaches a rotating cleaning element with a cleaning attachment that reciprocates at 5-10,000 cycles per minute (col. 6, lines 39-45). The cleaning attachment is attached to a carrier by hook and loop material (col. 4, lines 30-38).

It would have been obvious to replace the recesses filled with the surface treatment composition as taught by Adams with the packets as taught by Girardot. Adams clearly teaches the "old way" of using cleaning solutions, by physically refilling a recess with a liquid cleaning solution. Girardot teaches a "new way" of using cleaning solutions, by containing the liquid solution in a prepackaged packet. Using pre-filled packets, prevents spillage that can occur with pouring liquid solutions. Additionally, placing a pre-filled package in a recess is faster than filling a recess with a solution. The package will also prevent the user from accidentally coming in contact with a potentially abrasive solution. Using a package with a peel off surface, as taught by Girardot, aids in containment of the surface treatment composition until the packet is ready to be used (col. 1, lines 53-57). This will increase the shelf life of the packets. Additionally, Adams states that any type of fastener could be used to attach the cleaning attachment (col. 2, lines 40-47), and Zayas teaches that snaps, clips and hook and loop fastening means are interchangeable, it would have been obvious to modify Adams' fastening means so that hook and loop

Art Unit: 1744

material is used to attach the cleaning attachment. The hook and loop material could either be located on the top surface of the carrier in the place of the existing clips or the hook and loop material could be located on the bottom surface of the carrier and when the packet is placed between the carrier and the cleaning attachment, the cleaning attachment would be connected to the carrier by the hook and loop material not covered by the packet. Additionally, it would have been obvious to modify Adams, Girardot and Zayas' invention to reciprocate at least 3,000 cycles per minute as taught by Kessel to achieve proper cleaning and scrubbing. Also as evidenced by Kessel, a cleaning attachment that is connected to a carrier with a hook and loop material is clearly capable of staying attached when reciprocating at high speeds.

With regards to the limitation that the attachment is triangular shaped, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to make the attachment triangular because Applicant has not disclosed that a triangular shaped attachment provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with round, rectangular or triangular attachments because these shapes perform the same function of cleaning equally well. Therefore, it would have been obvious to one of ordinary skill in the art to modify Adams to obtain the invention as specified in claim 1.

Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adams (USPN 2590913), Girardot (USPN 6406206), Zayas (USPN 5493749), Kessel (USPN 6746311) further in view of Dickler (USPN 6037319).

Adams, Girardot, Zayas and Kessel teach all the essential elements of the claimed invention however fail to teach that the surface treatment composition packet is water dissolvable (claim 2) and that the packet is made of polyvinyl alcohol (claim 3). Dickler teaches a liquid dispensing packet made from a water dissolvable material such as polyvinyl alcohol (col. 2, lines 64-66; col. 3, lines 1-7). It would have been obvious to use make the packages of treatment composition of Girardot water dissolvable as

Art Unit: 1744

taught by Dickler to eliminate waste and furthermore the user would not have to come in contact with any of the treatment composition whether when disposing of a non-dissolvable packet or when refilling a non-dissolvable packet, thus eliminating any injuries that may occur due to the cleaning solution. Also, refilling of a non-dissolvable packet could lead to cross contamination if refilling with a different cleaning solution.

Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adams (USPN 2590913), Girardot (USPN 6406206), Zayas (USPN 5493749), Kessel (USPN 6746311) further in view of Siman (USPN 5701625).

Adams, Girardot, Zayas and Kessel teach all the essential elements of the claimed invention however fail to teach a rechargeable battery disposed in the housing for powering the motor (claim 5) and a power switch coupled between the battery and the motor (claim 6). Siman teaches a rechargeable battery disposed in the housing for powering the motor (col. 4, lines 54-56) and a power switch (12) coupled between the battery and the motor (col. 2, lines 63-65). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Adams so that it comprises a rechargeable battery and power switch as taught by Siman since making devices portable and automatic are modifications known in the art. *In re Larson* 144 USPQ 347, 349; *In re Venner* 120 USPQ 192, 194. Eliminating the power cord from Adams with a rechargeable battery would allow the device to be used anywhere without the need of an electrical outlet.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Adams (USPN 2590913), Girardot et al. (USPN 6406206), Zayas (USPN 5493749), Kessel (USPN 6746311) and Siman (USPN 5701625) and further in view of Kasen et al. (USPN 5937475).

Adams, Girardot, Zayas, Kessel and Siman teach all the essential elements of the claimed invention however fail to teach an interrupt switch. Kasen teaches an extractor with an interrupt switch (98) located between the motor and the source of electricity. It would have been obvious to one of

Art Unit: 1744

ordinary skill in the art at the time the invention was made to modify Adams' cleaning machine to include an interrupt switch as taught by Kasen so that the cleaning attachment of Adams can alternate between reciprocation or no reciprocation without completely turning off the device. This would allow for providing only surface treatment composition to the cleaning surface at times when the cleaning attachment is not to be reciprocated (col. 4, lines 33-50).

Claims 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adams (USPN 2590913), Girardot (USPN 6406206), Zayas (USPN 5493749), Kessel (USPN 6746311) further in view of Siman (USPN 5701625).

Adams, Girardot, Zayas and Kessel teach all the essential elements of the claimed invention including a plate (40) attached to a bottom side of the carrier (claim 15), with a rubber portion (52) attached to an underside of the carrier plate. Adams however fails to teach the carrier coupled to the drive shaft by a bearing having an outer race fixed with respect to the carrier (claim 14). Adams also fails to teach that the rubber layer is made of foam (claim 16) and that the foam is attached to the carrier plate by hook and loop material (claims 17 and 18). Siman teaches a carrier coupled to the drive shaft by a bearing (7). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the drive shaft of Adams with the bearings of Siman since ball bearing allow for friction less motion which in turn prevents premature wearing.

With regards to claim 16, Adams teaches using a rubber layer for supporting the cleaning attachment however it is known in the art that foam can be used as a base in cleaning applications for cleaning and polishing. It would have been obvious to use foam as an alternative to the rubber layer since both have similar characteristics such as being sturdy and resilient.

With regards to claims 17 and 18, as stated above in previous rejection, Zayas teaches using hook and loop material as a means for attaching a cleaning attachment to a carrier. Therefore, it would have been obvious to use hook and loop material as the means for adhering the foam layer to the carrier plate.

Art Unit: 1744

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Adams, Girardot, Zayas and Kessel as applied to claim 1 above and further in view of Super (USPN 6493903).

Adams, Girardot, Zayas and Kessel teach all the essential elements of the claimed invention however fail to teach a lamp located in the forward part of the housing. Super teaches a cleaning device comprising a headlamp. It would have been obvious to add a head light to Adams, Girardot, Zayas and Kessel's invention so that the area being cleaned can be illuminated to allow for a proper and thorough cleaning of the area.

Allowable Subject Matter

Claims 30-31 allowed.

The following is an examiner's statement of reasons for allowance:

Claim 30 teaches a cleaning attachment as well as a scrub brush external to the cleaning attachment that reciprocates in an orbital path. Both the cleaning attachment and the scrub brush are located on a carrier that reciprocates with respect to the housing. The scrub brush comprises an elongated body located between the carrier and the cleaning element. Gruber et al. (USPN 6463615) fails to teach a scrub brush reciprocating in an orbital path. The brush of Gruber just reciprocates back and forth and not in an orbit path. While orbital reciprocating brushes are known in the art, the combination of an orbital reciprocating brush having an elongated body located between the carrier and the cleaning element is not known and therefore free from the prior art. It would not have been obvious to modify references to achieve the claimed invention since there is no motivation or teaching to do so.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

Applicant's arguments filed 4/4/07 have been fully considered but they are not persuasive.

Art Unit: 1744

The applicant argues that a rectangular pad is not capable of cleaning a corner as well as a pad with a triangular shape. The applicant states that the cleaning pad would jam dirt into the corner rather than drive it out. The applicant provided figures to show how dirt in a corner would respond to a rectangular cleaning pad. The drawings show the rectangular pad being moved in only one direction, however it is possible to combine the linear directions of drawings B and C to effectively clean a corner. For example, the user could start out with the vertical movement shown in drawing C and maneuver the pad so that it then ends the cleaning process by moving the pad horizontally, similar to drawing B. Or the pad may start out vertical as shown in drawing C, but then the pad can be rotated counter clockwise to force dirt out of the corner. If the triangular shaped pad was only allowed to move in one direction, back and forth, the dirt would also get jammed into the corner. The pad, whether triangular or rectangular will need to move in more than one direction in order to remove the dirt from the corner. The pad may have to be positioned in the corner to begin with (to cover the dirt) and then pulled outward while applying force to remove the dirt, or the pad may have to be used repetitively in various directions to clean the corner. In any case, a rectangular cleaning pad can be used just as effectively as a triangular shaped cleaning pad.

The applicant further argues that Kessel largely focuses on using adhesive connecting systems and while the references does mention hook and loop connection, it does not depict how to implement that. In response, column 4, lines 30-38 clearly teach how the hook and loop material is to be used. It states that the loop fabric can be positioned on the polishing element and the hooks can be located on the pad element. The reference explicitly states how the hook and loop material is to be used on the high-speed device. Additionally, one of skill in the art would be capable of determining how to implement the hook and loop material in an appropriate manner.

The applicant further argues that the Kessel would not motivate one of skill in the art to apply hook and loop attachment principles to a framing around the packet, in the context of a high speed

Art Unit: 1744

reciprocating triangular plate. The examiner would like to point out that the principles of the hook and loop material on high speed devices as taught by Kessel would be applied to the Adams reference, which already teaches an opening in the frame for the packet. By applying the principles of using hook and loop, it is clear that the hook and loop would need to be positioned around the opening since that is where the frame is located. Additionally, since hook and loop material is a known connecting device for high speed elements, one of skill in the art would have known how to position the hook and loop material on the frame of Adams so that it is capable of staying connecting when in use.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shay L. Karls whose telephone number is 571-272-1268. The examiner can normally be reached on 7:00-4:30 M-Th, alternating F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys Corcoran can be reached on 571-272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1744

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Shay L. Karls
Patent Examiner
Art Unit 1744